a barred area as usual and there is no perceptible dorsal plate. The head is slightly elongated, very pale brown, the antennæ rather short, weak, the small tuft in the middle (Plate III, Fig. 5). The prothoracic hairs are much reduced. Air tube moderate, about two and a half times as long as wide, weakly infuscated, the pecten teeth (Plate III, Fig. 6) followed by a single hair tuft at about the middle. Lateral comb of rather few spines (Plate III, Fig. 8) in an irregular double row, the single spines somewhat sole-shaped and fringed to the apex (Plate III, Fig. 9). Anal processes very long, cylindrical, sack-like, rounded at the end, rather opaquely whitish, with numerous elliptical spots in which the branches of the tracheæ seem to terminate. Dorsal tuft and ventral brush much alike in appearance; also a single lateral hair.

The pupa has the usual appearance.

EXPLANATION OF PLATE III.

Fig. 1. Egg of Culex varipalpus Coq.

Fig. 2. Stage I of the same.

Fig. 3. Single tooth of the lateral comb of the eighth segment, stage I.

Fig. 4. Diagram of the anal segment, stage II, showing dorsal and ventral tufts.

Fig. 5. Stage IV.

Fig. 6. Single tooth of the pecten of the air tube.

Fig. 7. Labial plate.

Fig. 8. Lateral comb of the eighth segment.

Fig. 9. Single tooth of the lateral comb.

Class I, HEXAPODA.

Order V, LEPIDOPTERA.

SOUND PRODUCED BY A JAPANESE SATURNIAN CATERPILLAR.

By A. S. Packard, M.D.,

PROVIDENCE, R. I.

While rearing from the eggs a number of the larva of the Japanese Saturnian moth, *Rhodia fugax*, Mr. Joutel observed, as he kindly informs me that the larva in its last stage "makes a squeaking noise by

moving its head up and down on the prothorax." The two larvæ which I had, did not reach the last stage of development, so that I had no opportunity to repeat this observation.

In his second annual report on the noxious, etc., insects of Missouri, the late C. V. Riley states that the caterpillar of *Thyreus abbotii* "does not assume the common sphinx attitude of holding up the head, but rests stretched at full length, though if disturbed it will throw its head from side to side, thereby producing a crepitating noise" (p. 79).

So far as I am aware, this is the only other instance known of a lepidopterous larva producing by friction or in any other way an audible sound.

It is probable, however, that there are similar cases on record and I would be much obliged for any information regarding them.

NOTE BY THE EDITOR.

The larva of *Cressonia juglandis* is well known to produce a squeaking noise when disturbed, apparently by motions of the head against the prothorax. *Platypteryx arcuata* produces a rasping sound by scraping certain stiff setæ on the surface of the leaf and some Tineids make a rustling noise by motions within their dried leaf mines; but these latter cases are perhaps not of the class of which Dr. Packard desires to learn.

REMARKS ON THE CATALOGUE OF THE NOCTUIDÆ IN THE COLLECTION OF THE BRITISH MUSEUM.

By John B. Smith, Sc.D.,

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(PLATE IV.)

This is Volume IV of the Phalænæ and, like the preceding volumes, is prepared by Sir George F. Hampson. After defining the Noctuidæ the author divides them into 15 subfamilies of unequal value and extent. As this is the first really well based attempt to make a subfamily division the table is reproduced, modified in form only:

Ι.	Maxillary palpi absent	2
	Maxillary palpi present	1.5